

Use Attainability Analysis
for
Water Body Identification # 2017
Little Indian Creek

Conducted by:
Environmental Resources Coalition

To:
Missouri Department of Natural Resources
Water Protection Program

Submitted: July 14, 2005



Stream Description – WB ID: 2017 – Little Indian Creek

Little Indian Creek (WB 2017) is located in the northeastern most portion of the Ozark Highlands physiographic region (Thom and Wilson 1980). The Ozark Highland physiographic region is characterized by thin, often stony, residual soils, with loess being very thin or absent. The topography of the region is steep to moderately rolling hills. The streams in this region generally flow northward with occasional bedrock outcrops.

Little Indian Creek is a one and one quarter mile class C stream of which the entire classified reach lies downstream of the Richwoods R-VII School District WWTF (MO0088927). The reach runs from the Highway A overpass near the town of Richwoods and flows northwest to the confluence with Cordia Creek in northern Washington County. The entire classified reach (1 ¼ miles) was walked and assessed for physical characteristics. During this assessment, the surveyor did not find sufficient depth to support whole body contact recreation (maximum depth of at least one meter or an average depth of at least ½ meter). Primary surroundings include wooded areas, pastures and small rural residential sites.

Thom, R. H. and J. H. Wilson. 1980. The Natural Divisions of Missouri. Trans. Mo. Acad. Sci. 14: 9-23.

Note: During the first visit to each site, ERC selected an assessment location (either upstream or downstream) based on which side appeared deepest and or most likely for whole body recreation.

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet A: Water Body Identification

Water Body Name: Little Indian Creek
8 – digit HUC: 07140102
Missouri WBID # 2017
County: Washington
Upstream Legal Description: Sec. 31, T40N, R2E, Washington County
Downstream Legal Description: Sec. 30, T40N, R2E, Washington County
Upstream Coordinates: Latitude 31.1560778 ° N , Longitude 90.8394725 ° W
Downstream Coordinates: Latitude 38.1629461 ° N , Longitude 90.8478763 ° W
Discharger Facility Name(s): Richwoods R-VII School District
Discharger Permit Number(s): MO0088927
Number of Sites Evaluated: 1 (100% of stream assessed)
Name of Surveyor and Telephone Number: Robert R. Bacon, (573) 634-7078
Organization: Environmental Resources Coalition (ERC)
Position: Director of Aquatic Services

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA sheet is true and accurate.

Signed: Robert R. Bacon

Date: 7-14-2005

Weather Conditions

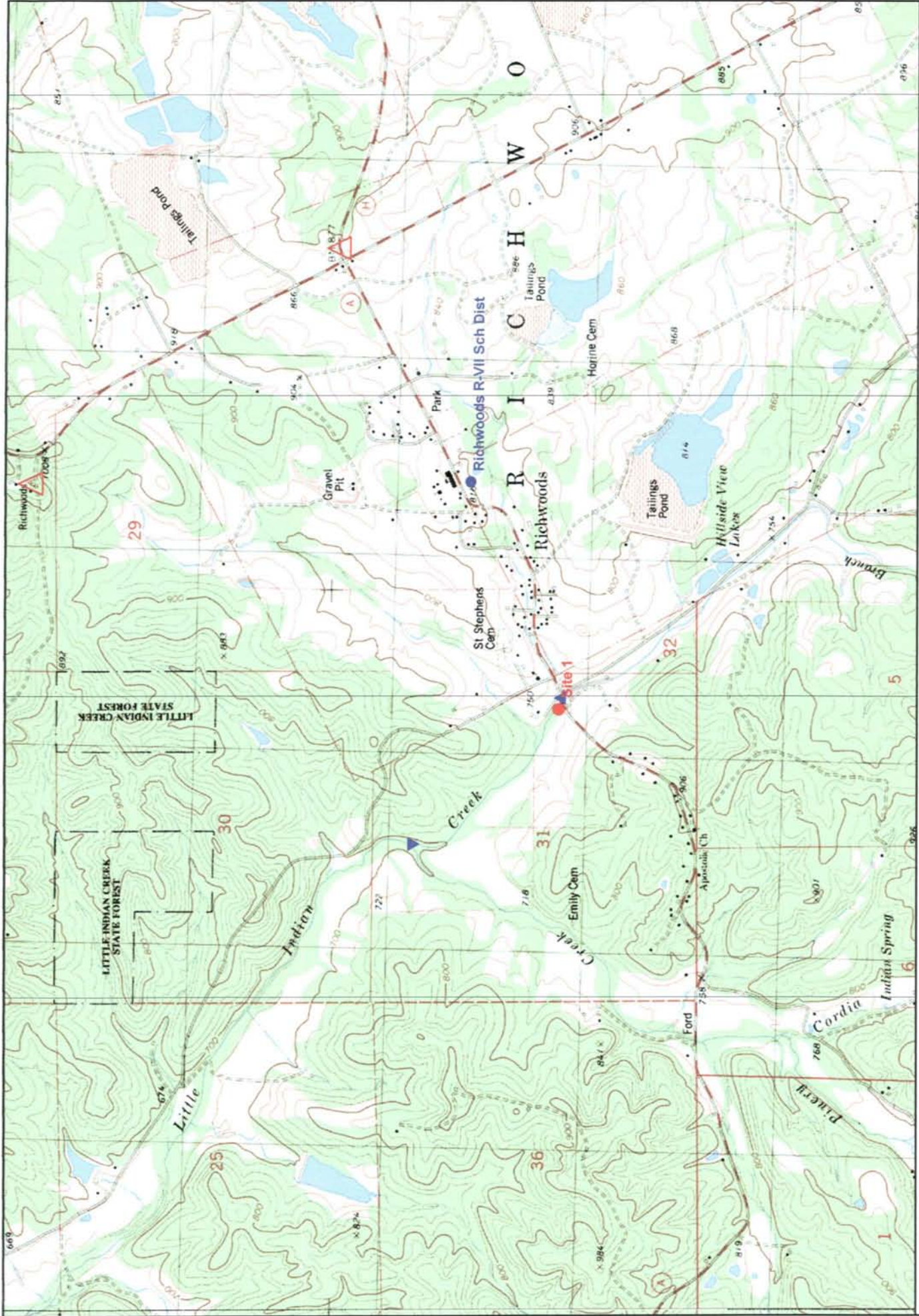
Weather conditions for the field surveys and the previous ten days are listed in the tables below.

Data from the Midwestern Regional Climate Center

Potosi, Missouri, Station ID: 236826

Date	Precipitation (Inches)	Min. Temp (°F)	Max. Temp (°F)	Average Temp (°F)
04/07/2005	0.27	54	72	63
04/08/2005	Trace	44	60	52
04/09/2005	0	45	72	59
04/10/2005	0	51	78	65
04/11/2005	0	62	80	71
04/12/2005	0.74	51	65	58
04/13/2005	0.35	44	65	55
04/14/2005	0.01	34	54	44
04/15/2005	0	34	65	50
04/16/2005	0	45	73	59
04/17/2005	0	54	79	67

Date	Precipitation (Inches)	Min. Temp (°F)	Max. Temp (°F)	Average Temp (°F)
05/25/2005	0	50	72	61
05/26/2005	0	56	72	64
05/27/2005	0	52	69	61
05/28/2005	0.10	50	77	64
05/29/2005	0.27	52	76	64
05/30/2005	0	52	80	66
05/31/2005	0	57	79	68
06/01/2005	0	53	78	66
06/02/2005	0	55	79	67
06/03/2005	0	58	74	66
06/04/2005	0	58	80	69



Name: RICHWOODS
Date: 7/4/2005
Scale: 1 inch equals 2000 feet

Location: 038.1606501° N 090.8372563° W

WB # 2017 – Little Indian Creek

Site # 1 - Off Hwy A

GPS Location

**38.1561956 North
90.8402674 West**

Elevation (feet)

815.7

Upstream Views

04/17/05



06/04/05



Downstream Views

04/17/05



06/04/05



Physical Dimensions – Site # 1

	04/17/05	06/04/05
Assessment Location	Downstream	Downstream
Time	10:30 AM	1:19 PM
Stream Type	Riffle	Riffle
Width (m)	4.78	5.18
Length (m)	30.48	30.48
Ave Depth (cm)	9.59	6.39
Maximum Depth (cm)*	17.0	13.0
Flow Present	Yes	Yes
Flow (cfs)	14.89	-

SUBSTRATE

Cobble	40%	50%
Gravel	20%	50%
Sand	0%	0%
Silt	0%	0%
Mud / Clay	0%	0%
Bedrock	40%	0%
	100%	100%

OTHER

Uses Observed	None	None
Evidence of Human Use (WBCR)	None	None
Aquatic Vegetation	Periphyton	60% Periphyton

Water Characteristics

Odor	None	None
Color	Clear	Clear
Bottom Deposits	Periphyton cover	Periphyton cover
Surface Deposits	None	None

* Maximum depth is maximum measured depth within the stream cross-section

NOTE: Site # 1 uppermost point on Little Indian Creek

Site Description

Site #1: Site #1 of Little Indian Creek is the uppermost site of the classified reach and is located on Highway A just west of the town of Richwoods in Washington County. Pastures and wooded areas surround the water body at this site.

There was one assessment site on Little Indian Creek because there is only one moderately easily accessible site to the stream and because the entire (100%) classified reach was walked by assessors on April 17th. During this assessment, the water depth was found not to be of sufficient depth to support whole body contact recreation as per the Missouri Department of Natural Resources Recreational Use Attainability Analysis Protocol.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheets, are true and accurate.

Signed: Robert R. B.

Date: 7-14-2005

Organization: ERC

Position: Dir. of Aquatic Services

Summaries of Interviews

The following interviews were conducted by Abby Welschmeyer and Anna Welschmeyer with landowners and creek users during the month of June of 2005. Questions were asked of the interviewee either in person or over the phone. Survey sheets were completed based on the information acquired by the interviewer. The questions asked are as follows:

- How long have you lived near this body of water?
 - Do you or your family utilize this body of water for recreational activities?
 - If not used, why?
 - If used, what types of activities, what seasons, how many times per period, and what flow conditions (low, medium, or high)?
- Have you witnessed other people utilizing the water body? (If so, the aforementioned questions apply.)

To assist in the collection of interviews letters were developed detailing the water quality rule, our affiliation with the Missouri Department of Natural Resources and our contact information. These letters were left at residences nearby the water body where nobody answered the door. This turned out to be a very effective way of quickly collecting key interviews of people most familiar with the resource.

Date: 06/04/05

Time: 1:40 PM

Name: Linda Arnold

Reason for Interview: lives near water body

Linda Arnold has lived near Little Indian Creek for 20 years. She stated that she does not utilize the water body for recreation because she is too busy working and has no need. Ms. Arnold also stated that she has not seen anyone else recreate in the stream.

Date: 06/04/05

Time: 1:35 PM

Name: Beth Rutledge

Reason for Interview: lives near water body

Beth Rutledge has lived near Little Indian Creek for almost a year. She stated that she does use the stream for wading nearly every day in the summer, and despite knowing the poor conditions of the water body, states that she cannot keep her children from using it. Ms. Rutledge also commented that she has seen people walking along and wading in the stream a few times during the summer months, even though the water body's poor quality is well known.

Summaries of Interviews (cont'd)

Date: 06/04/05

Time: 2:30 PM

Name: Rachel Jones

Reason for Interview: works at church near water body

Rachel Jones has worked at the church near Little Indian Creek for 25 years. She stated that her own family does not use the stream because they live closer to Big Indian Creek, which is much larger and more accessible than Little Indian Creek. Ms. Jones commented that she has seen people using the water body to cool off during the summer months when the stream is at low flowing conditions.

Date: 06/04/05

Time: 2:30 PM

Name: Rosemary Suiter

Reason for Interview: lives near water body – phone interview

Rosemary Suiter has lived near Little Indian Creek for 91 years. She no longer uses the water body for recreation because she does not have the need. Ms. Suiter said that she has not seen anyone using the water body, but she also does not go to the stream anymore.

Date: 06/04/05

Time: 2:30 PM

Name: Fr. Robert Liss

Reason for Interview: lives near water body

Fr. Liss has lived and worked near Little Indian Creek for 13 years. He stated that he does not use the water body for recreational activities because he doesn't have the need. Fr. Liss commented that he may use it if it were cleaned up, stating he knows people's houses, particularly the nearby trailer parks, dump into the stream. He said he has not seen anyone recreating in the stream.

Summaries of Interviews (cont'd)

Date: 06/04/05

Time: 1:50 PM

Name: Heather Spratt

Reason for Interview: lives near water body

Heather Spratt has lived near Little Indian Creek for 3.5 years. She stated she uses the stream for recreation every other day during the summer months. She and her family fish and swim in the water body, and were planning on doing so later on the day of the interview. Ms. Spratt stated that all the kids in the trailer park she lives in swim, fish, wade, and play in the knee-deep clear stream. She also commented that she sees people wading and/or fishing everyday during the summer to cool off and relax.

Date: 07/05/05

Time: 3:50 PM

Name: Donald Bliss

Reason for Interview: He read an article in a news paper about the new water quality rule and called MDNR. MDNR recommended that he also call ERC for an interview.

Donald Bliss has lived or owned land near Little Indian Creek for 50 years. He uses the stream below the classified section on which he owns land for hunting and fishing. However, he did note that the stream even below the classified section is very shallow and full of gravel. Mr. Bliss was not very familiar with the classified section of the creek and was not aware of anyone using that portion of the stream.

Note: Many of the residents living near Richwoods had a heightened sensitivity to environmental issues since the area recently went through a locally controversial sanitary landfill permitting process. This previous issue might have affected the accuracy and or bias of some of the interviews.